



## Product/Process Change Notice - PCN 14\_0258 Rev. B

Analog Devices, Inc. Three Technology Way Norwood, Massachusetts 02062-9106

This notice is to inform you of a change that will be made to certain ADI products (see Appendix A) that you may have purchased in the last 2 years. **Any inquiries or requests with this PCN (additional data or samples) must be sent to ADI within 30 days of publication date.** ADI contact information is listed below.

*Note: Revised fields are indicated by a red field name. See Appendix B for revision history.*

**PCN Title:** Assembly Transfer of Selected 14x14 LQFP, 14x14 LQFP\_EP and 7x7, 10x10, 12x12, 14x14 TQFP\_EP Products to Amkor Philippines

**Publication Date:** 03-Aug-2015

**Effectivity Date:** 31-Jan-2016 *(the earliest date that a customer could expect to receive changed material)*

### Revision Description:

Reason for Change: Revised the estimated AK1 factory line shutdown date for 7x7, 10x10, and 14x14 body packages from Oct. and Nov. of 2015 to mid-year 2016.

Update Attachment 7 to Qualification Results Summary for 14x14 LQFP Using G631HQ\_3230\_QMI536 at AP.

Revised attachment 6 and 8: Expected qualification completion date by December 2015.

### Description Of Change

ADI is transferring to qualified subcontractor Amkor Philippines for the assembly of 14x14 LQFP, 14x14 LQFP\_EP and 7x7, 10x10, 12x12, 14x14 TQFP\_EP products.

ADI will be qualifying Amkor's standard bill of materials (BOM). The mold compound material for 14x14 body packages will change from Sumitomo G700L to Sumitomo G631HQ. The mold gate position will change as a result of the mold compound change. The package outline dimensions and wire sizes of each product will be maintained.

#### History of Effectivity Dates:

Rev – : Effectivity date was 1-Apr-2015 with Qualification Plans provided.

Rev A : Effectivity date was 22-Jun-2015 for products covered by Qualification Results Summaries provided:

7x7 10x10 12x12 TQFP\_EP Using G700L\_3230, 10x10 12x12 TQFP\_EP Using G700L\_8361J and 14x14 TQFP\_EP Using G631HQ\_3230.

Rev B : Effectivity date will be 31-Jan-2016 for products covered by remaining Qualification Plans:

14x14 LQFP Using G631HQ\_3230

14x14 LQFP\_EP Using G631HQ\_3230

Effectivity date will be immediate for products covered by Qualification Results Summaries provided:

14x14 LQFP Using G631HQ\_3230\_QMI536

### Reason For Change

ADI is transferring to Amkor Philippines due to the closure of Amkor Korea factory line on February of 2015 for 12x12 TQFP\_EP and mid-year 2016 for 7x7, 10x10 TQFP\_EP, 14x14 LQFP, 14x14 LQFP\_EP, respectively.

ADI's assembly subcontractors manufacture products using Analog Devices specified manufacturing flows, materials, process controls and monitors, ensuring the same level of quality and reliability.

### Impact of the change (positive or negative) on fit, form, function & reliability

The transfer will have no impact on the form, fit, function and reliability of the devices.

**Product Identification** (this section will describe how to identify the changed material)

The parts that will be assembled after the transfer will be identified by assembly lot number and the country of origin.

**Summary of Supporting Information**

Qualification will be performed per ADI0012, Procedure for Qualification of New or Revised Processes. See attached Qualification Plans.

**Supporting Documents**

**Attachment 1: Type:** Detailed Parts List

ADI\_PCN\_14\_0258\_Rev\_B\_LQFP\_LQFP\_EP\_TQFP\_EP\_PART\_LIST\_REV\_A.xlsx

**Attachment 2: Type:** Detailed Change Description

ADI\_PCN\_14\_0258\_Rev\_B\_14x14 Mold Compound and Mold Gate Position Change.pptx

**Attachment 3: Type:** Qualification Results Summary

ADI\_PCN\_14\_0258\_Rev\_B\_7x7 10x10 12x12 TQFP\_EP Using G700L\_3230 at AP-Qualification Results Summary.docx

**Attachment 4: Type:** Qualification Results Summary

ADI\_PCN\_14\_0258\_Rev\_B\_10x10 12x12 TQFP\_EP Using G700L\_8361J at AP-Qualification Results Summary.docx

**Attachment 5: Type:** Qualification Results Summary

ADI\_PCN\_14\_0258\_Rev\_B\_14x14 TQFP\_EP Using G631HQ\_3230 at AP.docx

**Attachment 6: Type:** Qualification Plan

ADI\_PCN\_14\_0258\_Rev\_B\_14x14 LQFP Using G631HQ\_3230 at AP.docx

**Attachment 7: Type:** Qualification Results Summary

ADI\_PCN\_14\_0258\_Rev\_B\_14x14 LQFP Using G631HQ\_3230\_QM1536 at AP.docx

**Attachment 8: Type:** Qualification Plan

ADI\_PCN\_14\_0258\_Rev\_B\_14x14 LQFP\_EP Using G631HQ\_3230 at AP.docx

**For questions on this PCN, please send an email to the regional contacts below or contact your local ADI sales representatives.**

**Americas:** PCN\_Americas@analog.com

**Europe:** PCN\_Europe@analog.com

**Japan:** PCN\_Japan@analog.com

**Rest of Asia:** PCN\_ROA@analog.com

| Appendix A - Affected ADI Models                    |                           |                               |                            |                               |
|-----------------------------------------------------|---------------------------|-------------------------------|----------------------------|-------------------------------|
| Existing Parts - Product Family / Model Number (78) |                           |                               |                            |                               |
| AD53509G / AD53509JSWZ                              | AD53564 / AD53564JSWZ     | AD5522 / AD5522JSVDZ          | AD5522 / AD5522JSVUZ       | AD5522 / AD5522JSVUZ-RL       |
| AD5560 / AD11/2059Z-2                               | AD5560 / AD5560JSVUZ      | AD5560 / AD5560JSVUZ-REEL     | AD6645 / AD6645ASVZ-105    | AD7760 / AD7760BSVZ           |
| AD7760 / AD7760BSVZ-REEL                            | AD8116 / AD8116JSTZ       | AD8387 / AD8387JSVZ           | AD9271 / AD9271BSVZ-25     | AD9271 / AD9271BSVZ-40        |
| AD9271 / AD9271BSVZ-50                              | AD9271 / AD9271BSVZRL-40  | AD9272 / AD9272BSVZ-40        | AD9272 / AD9272BSVZ-65     | AD9272 / AD9272BSVZ-80        |
| AD9272 / AD9272BSVZRL-40                            | AD9272 / AD9272BSVZRL-65  | AD9272 / AD9272BSVZRL-80      | AD9273 / AD9273BSVZ-25     | AD9273 / AD9273BSVZ-40        |
| AD9273 / AD9273BSVZ-50                              | AD9273 / AD9273BSVZRL-25  | AD9273 / AD9273BSVZRL-40      | AD9273 / AD9273BSVZRL-50   | AD9276 / AD9276BSVZ           |
| AD9277 / AD9277BSVZ                                 | AD9389B / AD9389BBSTZ-165 | AD9389B / AD9389BBSTZ-80      | AD9410 / AD9410BSVZ        | AD9430 / AD80107Z             |
| AD9430 / AD80142BSVZ-200                            | AD9430 / AD80205BSVZ-200  | AD9430 / AD80215BSVZ-185      | AD9430 / AD9430BSVZ-170    | AD9430 / AD9430BSVZ-210       |
| AD9433 / AD9433BSVZ-125                             | AD9444 / AD9444BSVZ-80    | AD9445 / AD9445BSVZ-105       | AD9445 / AD9445BSVZ-125    | AD9446 / AD9446BSVZ-100       |
| AD9446 / AD9446BSVZ-80                              | AD9460 / AD9460BSVZ-105   | AD9460 / AD9460BSVZ-80        | AD9461 / AD9461BSVZ        | AD9726 / AD9726BSVZ           |
| AD9726 / AD9726BSVZRL                               | AD9775 / AD9775BSVZ       | AD9775 / AD9775BSVZRL         | AD9777 / AD9777BSVZ        | AD9777 / AD9777BSVZRL         |
| AD9786 / AD9786BSVZ                                 | AD9786 / AD9786BSVZRL     | AD9852 / AD9852ASVZ           | AD9854 / AD9854ASVZ        | AD9858 / AD9858BSVZ           |
| AD9910 / AD9910BSVZ                                 | AD9910 / AD9910BSVZ-REEL  | AD9951 / AD9951YSVZ           | AD9951 / AD9951YSVZ-REEL7  | AD9952 / AD9952YSVZ           |
| AD9952 / AD9952YSVZ-REEL7                           | AD9954 / AD9954YSVZ       | AD9954 / AD9954YSVZ-REEL7     | AD9957 / AD9957BSVZ        | AD9957 / AD9957BSVZ-REEL      |
| ADATE302-02 / ADATE302-02BSVZ                       | ADATE305 / ADATE305BSVZ   | ADAU1442 / ADAU1442YSVZ-3A-RL | ADAU1445 / ADAU1445YSVZ-3A | ADAU1445 / ADAU1445YSVZ-3A-RL |
| ADN4604 / ADN4604ASVZ                               | ADN4604 / ADN4604ASVZ-RL  | GAD53063 / AD53063-03Z        |                            |                               |

| Appendix B - Revision History |              |                  |                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|--------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rev                           | Publish Date | Effectivity Date | Rev Description                                                                                                                                                                                                                                                                                                                                       |
| Rev. -                        | 10-Dec-2014  | 01-Apr-2015      | Initial Release                                                                                                                                                                                                                                                                                                                                       |
| Rev. A                        | 22-Jun-2015  | 22-Jun-2015      | Including qualification result summaries for 7x7 10x10 12x12 TQFP_EP Using G700L_3230, 10x10 12x12 TQFP_EP Using G700L_8361J and 14x14 TQFP_EP Using G631HQ_3230. Remaining Qualification Plans updated to reflect new expected completion dates.                                                                                                     |
| Rev. B                        | 03-Aug-2015  | 31-Jan-2016      | Reason for Change: Revised the estimated AK1 factory line shutdown date for 7x7, 10x10, and 14x14 body packages from Oct. and Nov. of 2015 to mid-year 2016. Update Attachment 7 to Qualification Results Summary for 14x14 LQFP Using G631HQ_3230_QMI536 at AP. Revised attachment 6 and 8: Expected qualification completion date by December 2015. |

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